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	Autore	McInerney Andrew
	Titolo	First Steps in Differential Geometry [[electronic resource]] : Riemannian, Contact, Symplectic / / by Andrew McInerney
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	Nota di contenuto	Basic Objects and Notation -- Linear Algebra Essentials -- Advanced Calculus -- Differential Forms and Tensors -- Riemannian Geometry -- Contact Geometry -- Symplectic Geometry -- References -- Index.
	Sommario/riassunto	Differential geometry arguably offers the smoothest transition from the standard university mathematics sequence of the first four semesters in calculus, linear algebra, and differential equations to the higher levels of abstraction and proof encountered at the upper division by mathematics majors. Today it is possible to describe differential geometry as "the study of structures on the tangent space," and this text develops this point of view. This book, unlike other introductory texts in differential geometry, develops the architecture necessary to introduce symplectic and contact geometry alongside its Riemannian cousin. The main goal of this book is to bring the undergraduate student who already has a solid foundation in the standard mathematics curriculum into contact with the beauty of higher mathematics. In particular, the presentation here emphasizes the consequences of a definition and the careful use of examples and

constructions in order to explore those consequences.